THAT WHICH IS CLAIMED

1. A network device capable of providing location-based identification to network subscribers, comprising:

a processor that communicates with an access concentrator to

5   determine connection ports of host-generated data packets; and

a database that stores the connection port for the purpose of identifying connection ports within a network that have been granted network authorization.

2. The network device of Claim 1, wherein the processor reads an

10   identifier within a tagged portion of the data packet to determine connection ports of host generated data packets.

3. The network device of Claim 1, wherein the processor uses VLAN protocol as a communication link between the processor and the access concentrator.

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4. The network device of Claim 1, wherein the processor further comprises a querying agent capable of requesting identification data related to the connection port of host-generated data packets.

20   5. The network device of Claim 4, wherein the querying agent uses Simple Network Management Protocol (SNMP) as the communication link between the network device and the access concentrator.

6. The network device of Claim 4, wherein the querying agent uses

25   Extensible markup Language (XML) as the communication link between the network device and the access concentrator.

7. A method for implementing location-based identification in a communications network, comprising:

30   establishing a network connection between a host and a network;

transmitting data packets from the host through a location-specific, connection port;

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...tifying the location-specific, connecti... port at an access concentrator in the form of a port identifier;

communicating the port identifier to a network device; and

storing the port identifier in a database in communication with the

5   network device.

8.   The method of Claim 7, wherein identifying the location-specific, connection port at an access concentrator further comprises tagging the data packets with a port identifier at an access concentrator.

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9.   The method of Claim 8, wherein communicating the port identifier to a network device further comprises transmitting the tagged data packets to a network device.

15   10.   The method of Claim 8, wherein tagging the data packets with a port identifier further comprises tagging the packets with a port identifier that corresponds to a media access control (MAC) address.

11.   The method of Claim 8, wherein tagging the data packets with a port

20   identifier includes implementing the use of VLAN protocol.

12.   The method of Claim 7, wherein the access concentrator comprises a network element selected from the group consisting of a digital subscriber line access module (DSLAM), a wireless access point (WAP), a cable modem termination system

25   (CMTS), and a switching device.

13.   The method of Claim 7, wherein identifying the location-specific, connection port at an access concentrator further comprises:

transmitting a port requesting query from the network device to an

30   access concentrator; and

transmitting a port identifying response from the access concentrator to the network device.

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14. The method of Claim 13, wherein transmitting a port requesting query from the network interface device further comprises transmitting a SNMP (Simple Network Management Protocol) query.

5   15. The method of Claim 13, wherein transmitting a port requesting query from the network interface device further comprises transmitting a XML (Extensible Markup Language) query.

16. The method of Claim 13, wherein transmitting a port identifying response further comprises transmitting a port identifier that corresponds with a media
10 access control (MAC) address.

17. The method of Claim 7, wherein the network device further comprises a gateway device that provides subscribers network access.

15 18. A method for using location-based identification in a communications network, comprising:

accessing a database in communication with a network device to determine the identification status of connection ports within a communications
20 network; and

applying the identification status of connection ports to a network system application.

19. The method of Claim 18, wherein accessing a database in
25 communication with a network device further comprises accessing a database in communication with a gateway device.

20. The method of Claim 18, further comprising executing the network system application at the network device.

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21. The method of Claim 18, wherein applying the identification status of connection ports to a network system application further comprises applying the

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identification status of connection ports to a network billing application that bills subscribers based on location.

22. The method of Claim 18, wherein applying the identification status of connection ports to a network system application further comprises applying the identification status of connection ports to an authorization application that provides authorization to network subscribers.

23. The method of Claim 18, wherein applying the identification status of connection ports to a network system application further comprises applying the identification status of connection ports to determine port-specific information that will be communicated to a connection port.

AttyDktNo. 42253/205408